



# Test Report

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FAA Repairstation Number OYCR172L

Page 1 of 1

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**Date:** October 31, 1997  
**OCMTL No:** 971501  
**PO No:** Verbal John R. Benefiel  
**Phone:** 248-644-1455  
**Fax:** 248-644-6530

## **Background:**

A group of plastic sheeting samples identified as "COUNTER-MAID®" were submitted for the purpose of performing a material identification by use of Fourier Transform Infrared (FTIR) analysis and Differential Scanning Calorimetry (DSC).

The submitted samples were identified as a Polypropylene Copolymer. The purpose of this set of tests is to determine if this is indeed what the material is.

## **Methods of Testing:**

FTIR testing was performed by removing a small amount of material from both sides of the sample and performing diffuse reflectance spectroscopy.

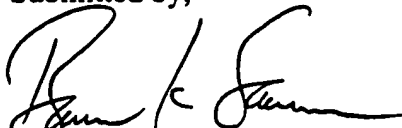
DSC testing was performed by cutting a sample weighing 7.20 mg, placing it in a sealed aluminum pan and performing a DSC test at a heating rate of 10°C per minute.

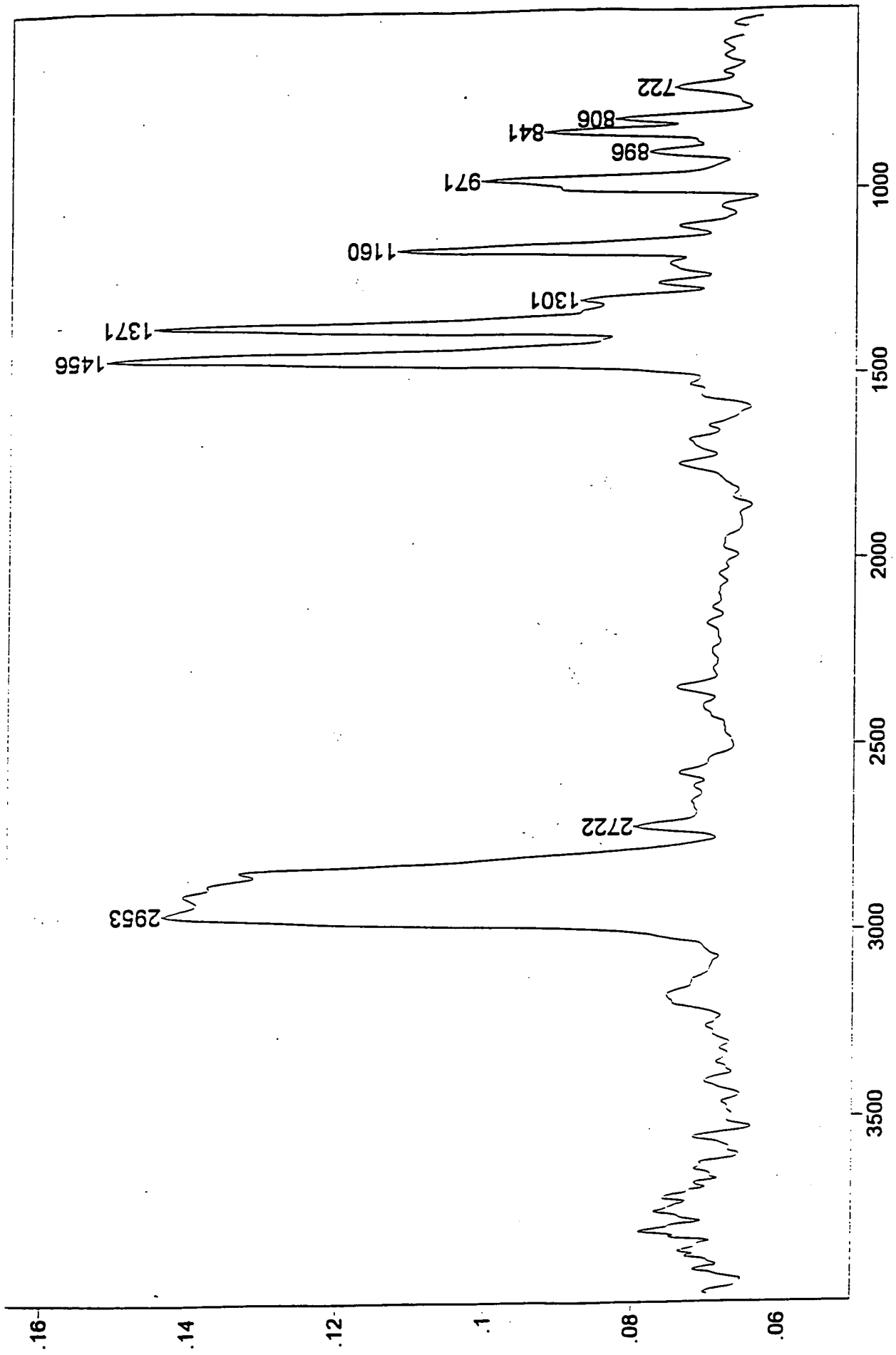
## **Test Results:**

The FTIR analysis of the sample best matched that of Polypropylene Copolymer. See attached spectra's. The primary difference between the copolymer and homopolymer is the peak at 723 cm-1, this is indicative of a secondary material being present.

The DSC analysis of the COUNTER-MAID® sample shows a slight inflection in the slope at about 120°C. This is indicative of a copolymer. See attached DSC curves. You will notice the homopolymer standard shows a fairly flat slope prior to the transition of the polypropylene, where the copolymer standard shows an inflection.

Submitted by,

  
**Bruce K. Sauer**  
**Lab Director**



Absorbance / Wavenumber (cm-1)

# 2 : 971501A

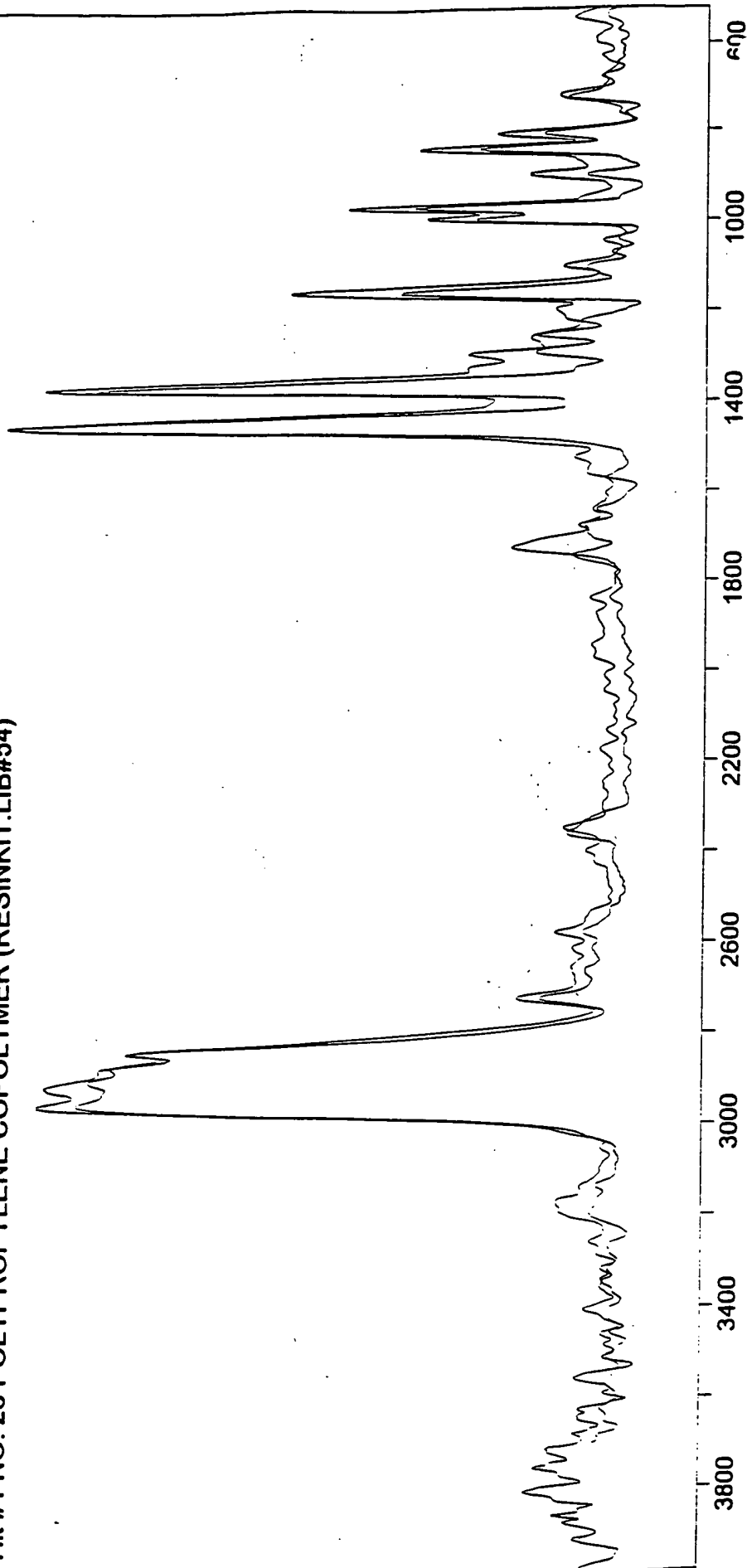
IN R. BENEFIEL / POLYPROPYLENE COPOLYMER SHEETING

Paged X-Zoom CURSOR

10/29/97 1:46 PM Res=8 cm-1

I:\data\97\971501a.SPC

Hit #1 NO. 26 POLYPROPYLENE COPOLYMER (RESINKIT.LIB#54)



Hit List

Quality Index SPC Identification

1	.2043	NO. 26 POLYPROPYLENE COPOLYMER
2	.27934	POLYPRO F-975 D*MODIFIED POLYPROPYLENE
3	.28898	PICCOLYTE S-25*POLYTERPENE RESIN
4	.31275	PT48.13401 TPXETHYLPENT-1-ENE)O
5	.34608	PT50.13601 P.P. NOVOLEN 1100M
6	.36465	EASTOBOND M-5L*HOT MELT LAMINATING ADHESIVE
7	.39505	PICCOLYTE S-125*HYDROCARBON THERMOPLASTIC TERPENE RESIN
8	.39505	PICCOLYTE S-125*HYDROCARBON THERMOPLASTIC TERPENE RESIN

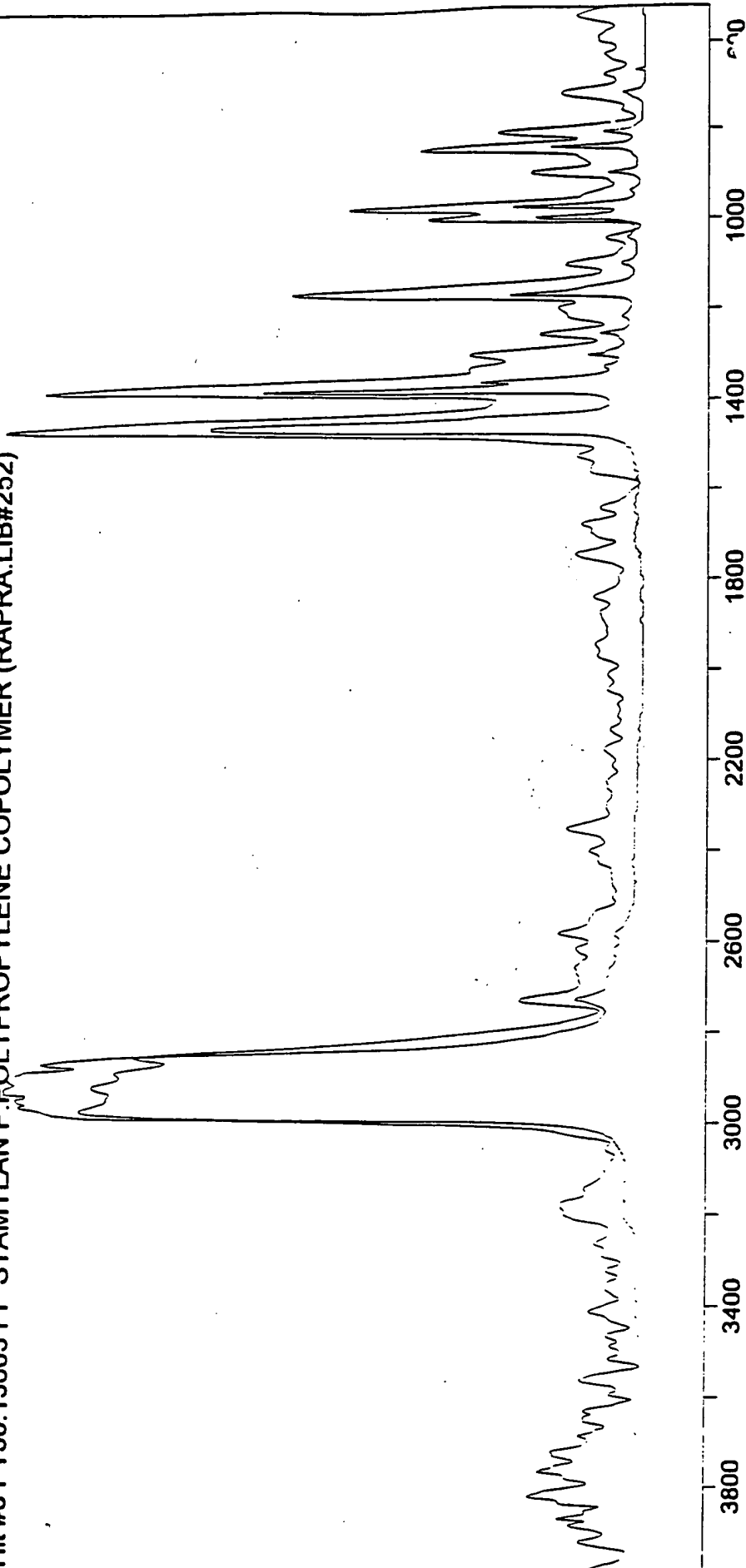


Search Date = 10/29/97 3:54 PM  
Mask Used = None

Peak Search: None  
Full Spectrum Search: Euclidian Distance  
Custom Search: None

I:\data\97\971501a.SPC

Hit #8 PT50.13603 PP STAMYLAN P POLYPROPYLENE COPOLYMER (RAPRA.LIB#252)



Wavenumber (cm-1)

Hit List

Number	Quality	Index	SPC Identification
1	.2043		NO. 26 POLYPROPYLENE COPOLYMER
2	.27934		POLYPRO F-975 D*MODIFIED POLYPROPYLENE
3	.36465		EASTOBOND M-5L*HOT MELT LAMINATING ADHESIVE
4	.40603		POLYPROPYLENE, ATACTIC
5	.42193		BICOR 410 B 3*POLYPROPYLENE FILM
6	.446		HOSTALEN PPK 1060*POLYPROPYLENE
7	.4509		PICCOPALE A-22*ANIONIC EMULSION
8	.45817		PT50.13603 PP STAMYLAN P POLYPROPYLENE COPOLYMER



Sample Name = 10/29/97 3:54 PM  
Search Date = 10/29/97 3:54 PM  
Mask Used = None

Peak Search: None  
Full Spectrum Search: Euclidian Distance  
Custom Search: None

I:\data\97\971501a.SPC  
Hit #6 HOSTALEN PPK 1060\*POLYPROPYLENE (OL.LIB#72)

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Wavenumber (cm-1)

Hit List

Number	Quality	Index	SPC Identification
6	.446		HOSTALEN PPK 1060*POLYPROPYLENE
7	.4509		PICCOPALE A-22*ANIONIC EMULSION
8	.45817		PT50.13603 PP STAMYLAN P.POLYPROPYLENE COPOLYMER
9	.46295		AMOCO 1046 POLYPROPYLENE*HOMOPOLYMER RESIN
10	.4653		POLYPROPYLENE FILM, ISOTACTIC*BIAXIALLY ORIENTED
11	.46649		POLYTAC*AMORPHOUS POLYPROPYLENE
12	.46649		PP8662R*POLYPROPYLENE
13	.46649		PT50.13602 SHELL POLYPROPYLENE

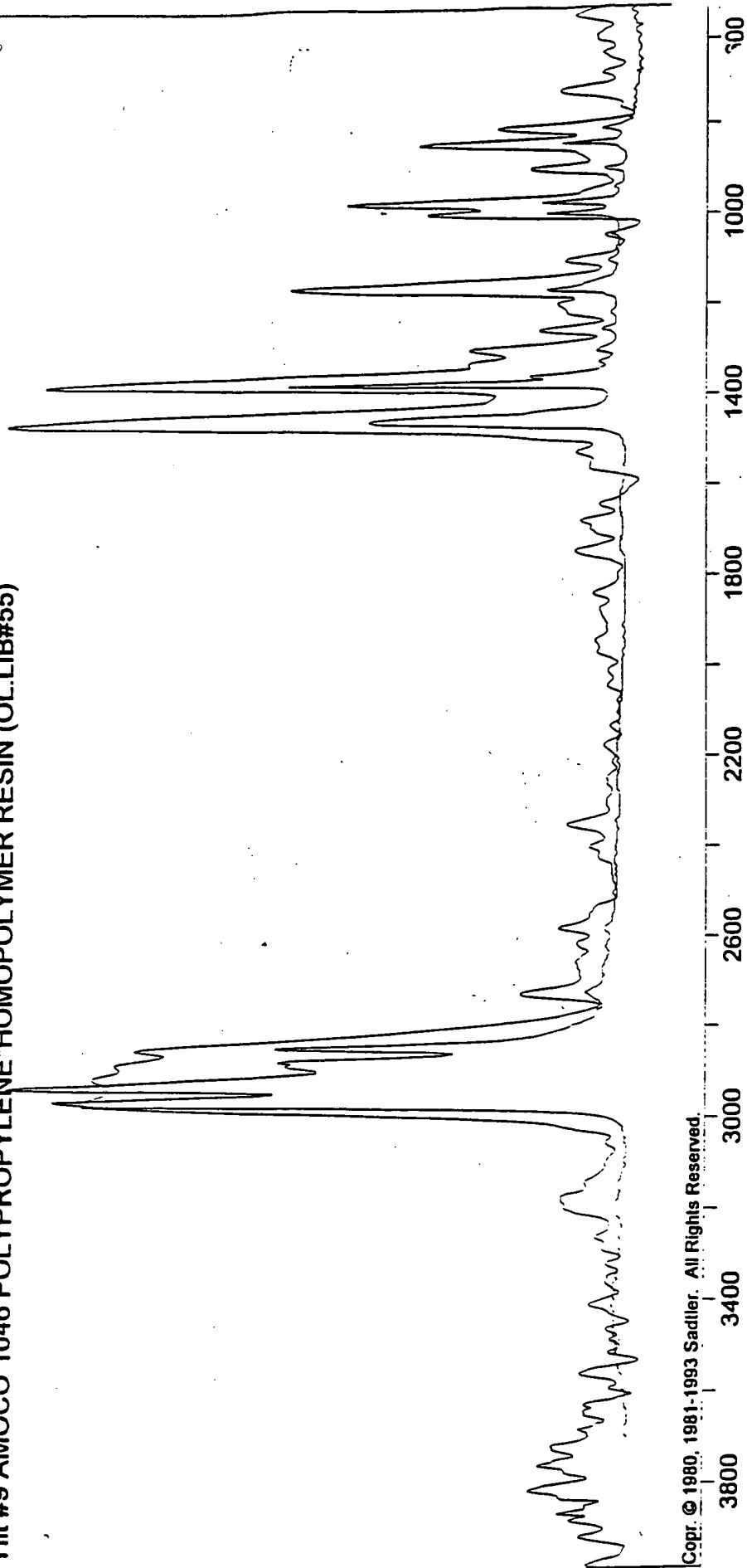


Sample Name = 971501a.SPC  
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Mask Used = None

Peak Search: None  
Full Spectrum Search: Euclidian Distance  
Custom Search: None

I:\data\97\971501a.SPC

Hit #9 AMOCO 1046 POLYPROPYLENE\*HOMOPOLYMER RESIN (OL.LIB#55)



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Wavenumber (cm-1)

#### Hit List

Number	Quality	Index	SPC Identification
1	.2043		NO. 26 POLYPROPYLENE COPOLYMER
2	.27934		POLYPRO F-975 D*MODIFIED POLYPROPYLENE
3	.36465		EASTOBOND M-5L*HOT MELT LAMINATING ADHESIVE
4	.40603		POLYPROPYLENE, ATACTIC
5	.42193		BICOR 410 B 3*POLYPROPYLENE FILM
6	.446		HOSTALEN PPK 1060*POLYPROPYLENE
7	.4509		PICCOPALE A-22*ANIONIC EMULSION
8	.45817		PT50.13603 PP STAMYLAN P POLYPROPYLENE COPOLYMER



"COUNTER MAID"

Sample: COPOLYMER POLYPROPYLENE

Size: 7.2000 mg

Method: DSC 25/10/300°C

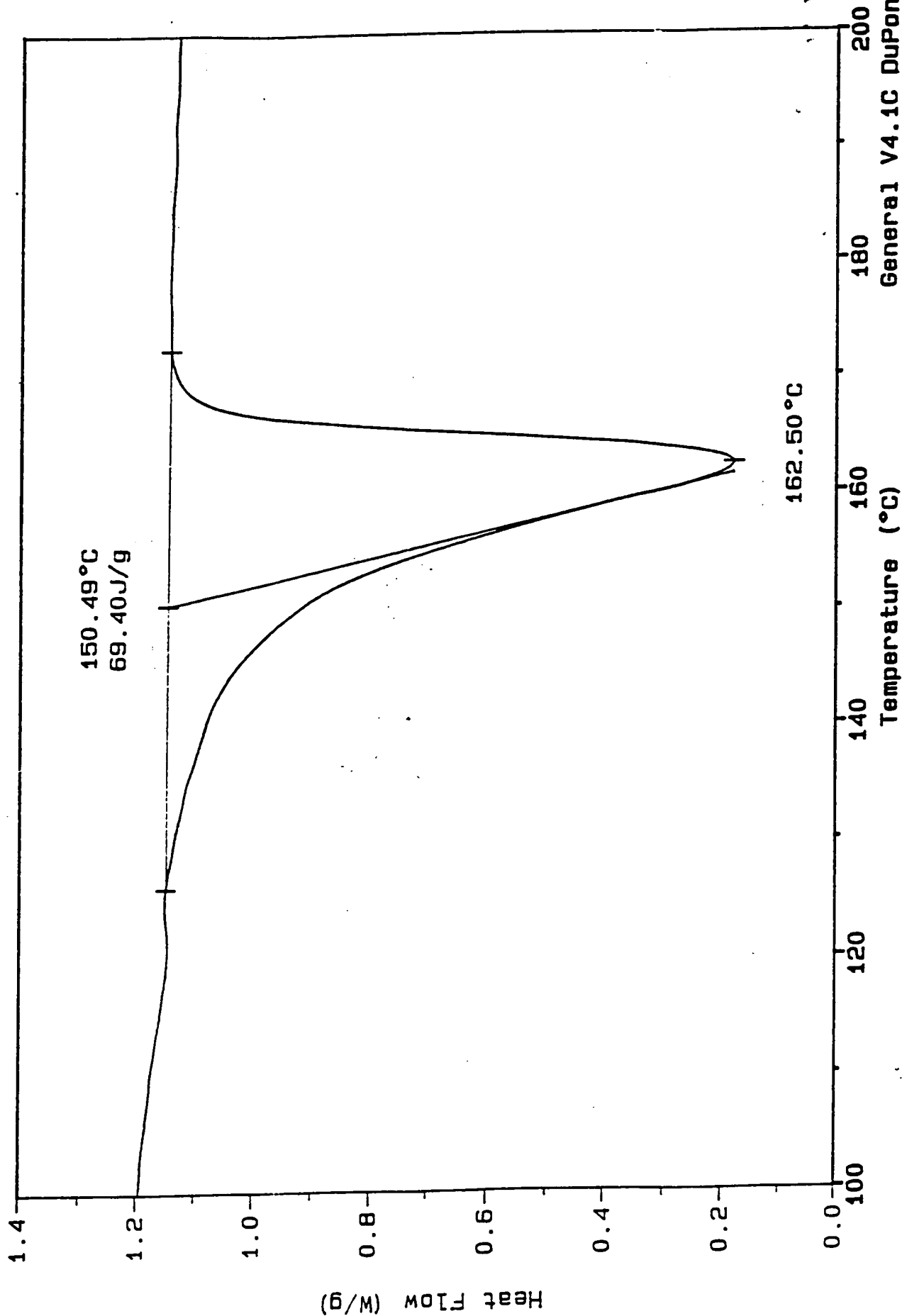
Comment: 10°C/min, NITROGEN PURGE

DSC

File: 971501

Operator: BEHZOZ HAMKAR

Run Date: 29-Oct-97 10:53

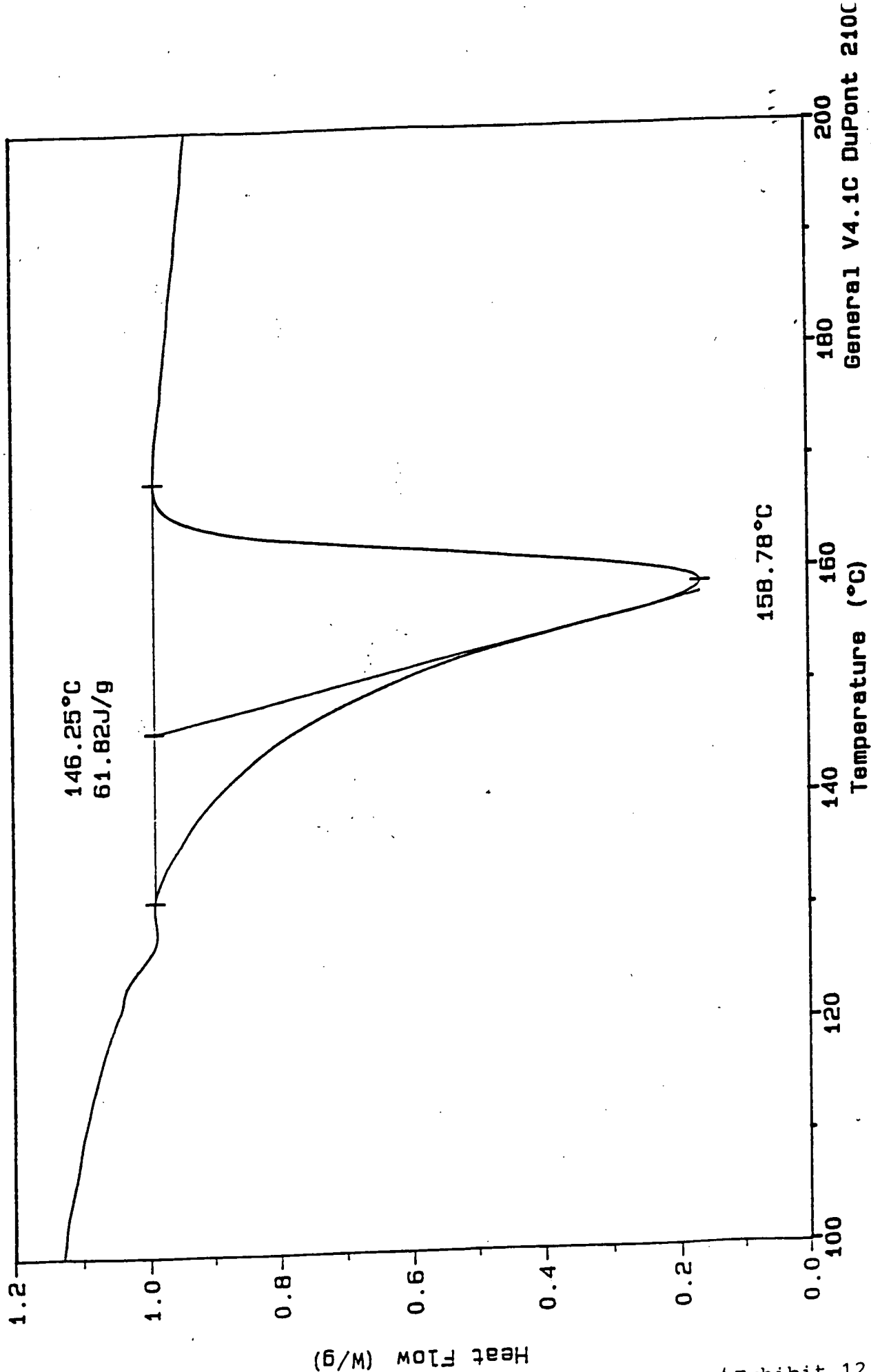


General V4.1C DuPont 210

STANDARD of KNOWN  
Sample: NO. 26 POLYPROPYLENE COPOLYMER  
Size: 9.1000 mg  
Method: DSC 25/10/300°C  
Comment: 10°C/min, NITROGEN PURGE

DSC

File: 971501.001  
Operator: BEHROZ HAMKAR  
Run Date: 30-Oct-97 06:33

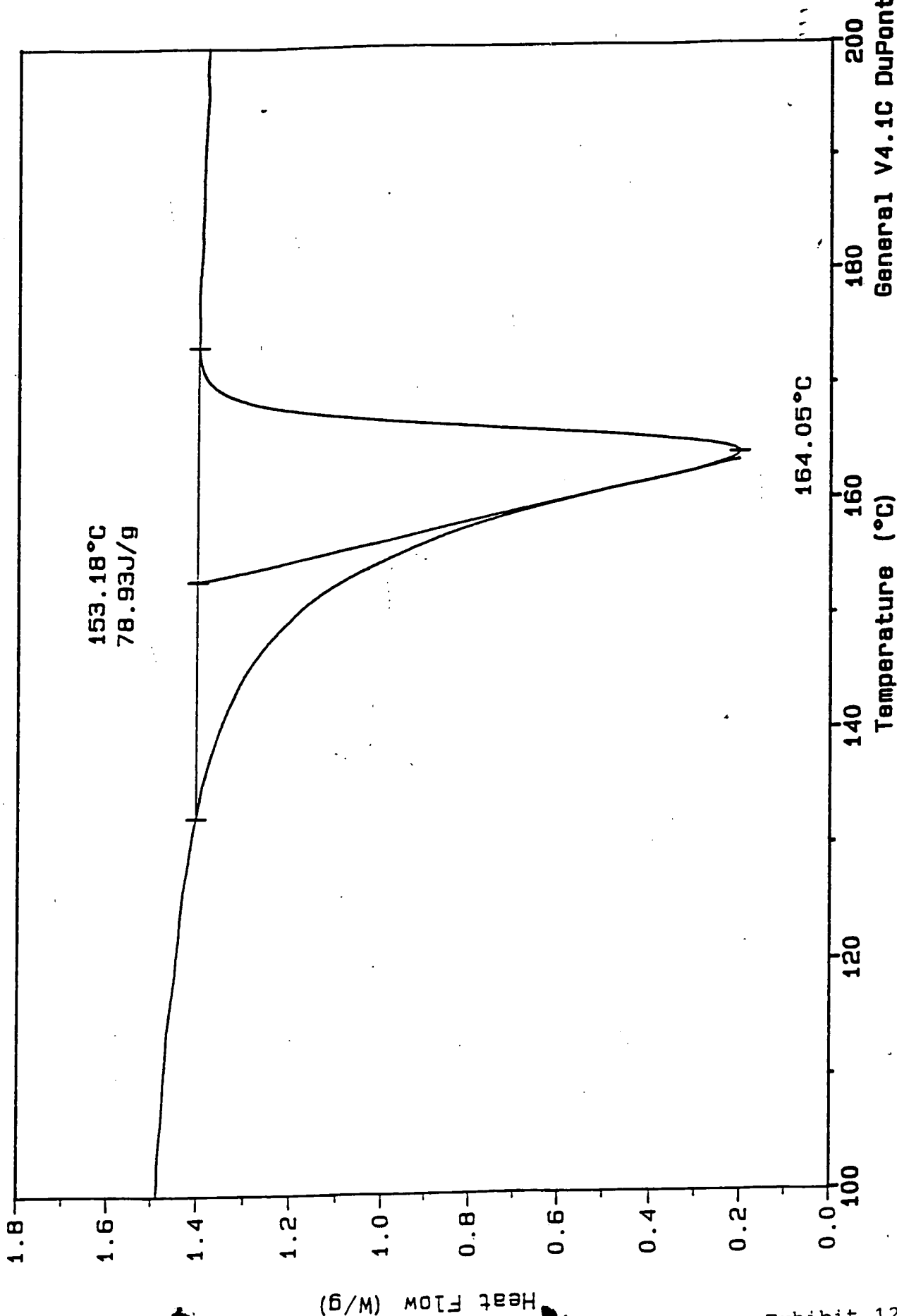




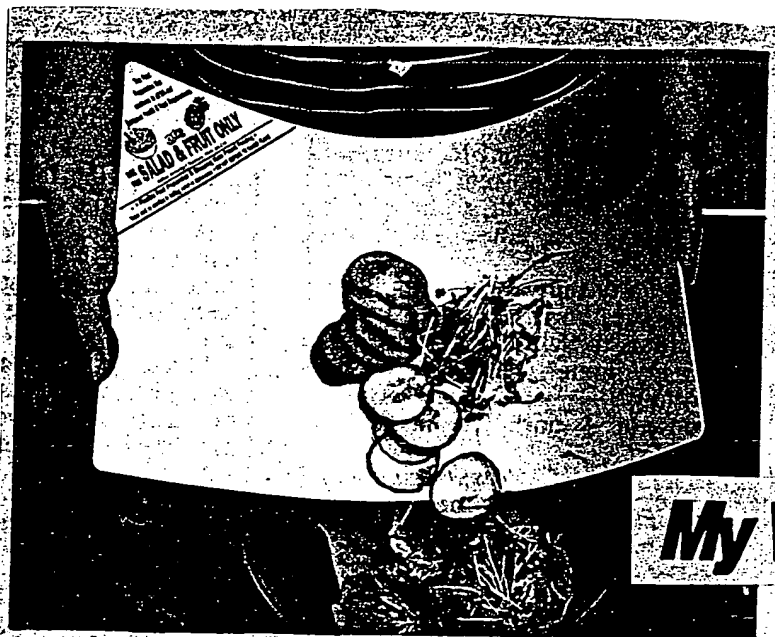
STANDARD of KNOWN  
Sample: NO. 27 POLYPROPYLENE HOMOPOLYMER  
Size: 7.7000 mg  
Method: DSC 25/10/300°C  
Comment: 10°C/min, NITROGEN PURGE

File: 971501.002  
Operator: BEHROZ HAMKAR  
Run Date: 30-Oct-97 09:31

DSC



General V4.1C DuPont 2100



**My Weekly**

## CHOP AND CHANGE

Healthy eating starts with hygienic food preparation. How often do we religiously separate different foods in the fridge, only to chop and prepare them on the same surface?

RoSMat food preparation mats provide the ideal solution. Originally designed for professional caterers, they're made from solid polypropylene, a resilient and long-lasting material which can be easily wiped clean or popped in the dishwasher.

And because of their light weight and unique flexibility, the mats can be bent into a "funnel," so you can shoot chopped food straight into a saucepan.

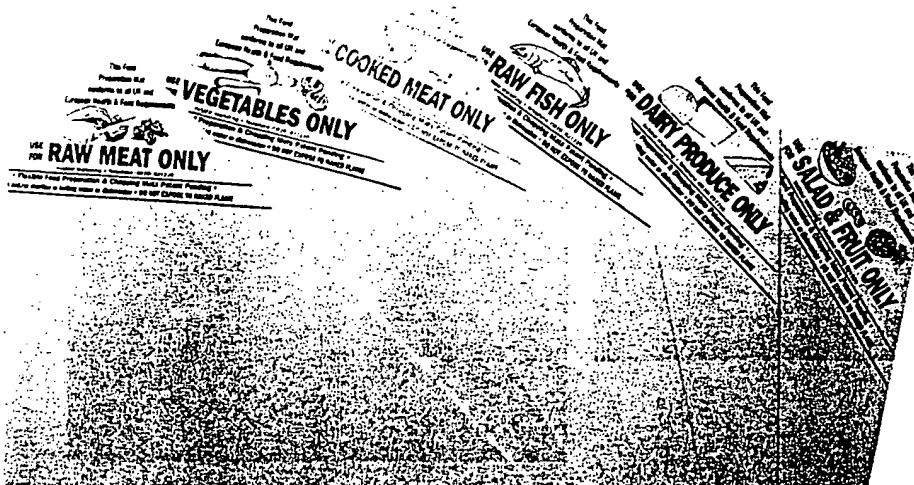
There are six RoSMat chopping mats, each colour-coded and printed with its intended use — for instance, Yellow is for cooked meat and Brown is for vegetables.

RoSMat colour-coded food preparation mats are available from 'good cooks' shops or direct by mail order from: RoSMat Marketing, Sealarm House, Modbury, Devon PL21 0XX. A full set of six mats costs £18, including p&p.

(18 MAY 1991)



BBC GOOD FOOD 3



◀ **RosMat Flexible Cutting and Chopping Mats** Tester comments: 'Separate mats for different foods ensure hygienic preparation. The boards bend and they are tough and easy to clean.' RosMat Marketing, £18 for six, inc. p&p, tel: (0548) 830710.

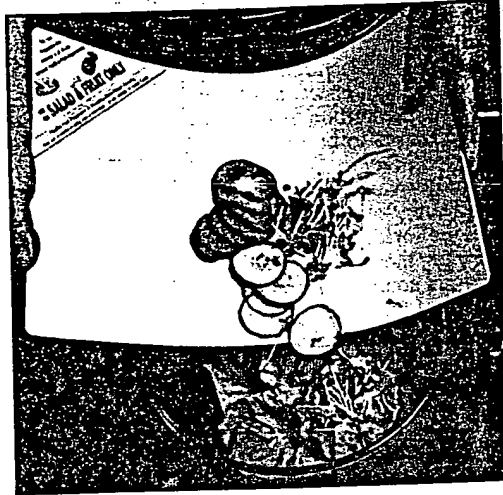


(JANUARY 1991) Exhibit 12  
Page 166

## WOMAN'S REALM



News from the kitchen front by Judith Ferguson



### FLEXITIME

Kitchen hygiene is easy with a set of flexible RosMat food preparation mats. Each is colour coded and printed with its intended use — raw meat, cooked meat, vegetables, salad/fruit, raw fish and dairy produce. Their unique flexibility means they can be bent to slide food directly into containers and pans, or waste directly into the bin! The 16 by 10 in (40.5 by 25.5 cm) mats are made of resilient polypropylene which is dishwasher safe

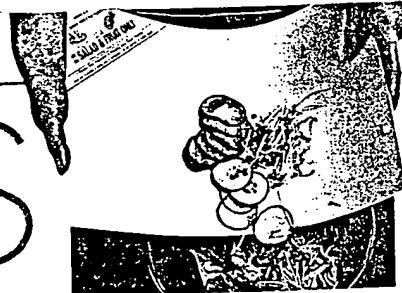
and can be sterilised in boiling water. They're £18 for six, including VAT, postage and packing. For more information write to RosMat Marketing, Sealarm House, Modbury, Devon PL21 0XX or telephone 0548 830710 (8.30 am to 5 pm).

(21 MAY 1991)



ACTIVE FOOD AND DRINK

# FOOD NEWS



### Smart Chopping

Food freshness and contamination is a current concern for most cooks. So having a different board for each kind of food makes sense. RoSMat have produced six food preparation and chopping mats, each labelled and colour coded, for £18 that includes one for each kind of food. Send your order (prices include p&p) to RoSMat Marketing, Sealarm House, Back Street, Modbury, Devon PL21 0XX.

(SUMMER 1991)

Blumberg No. 5117

EXHIBIT 5

# WINE AND DINE / HOME BASE

WEEKEND TELEGRAPH, SATURDAY, MARCH 16, 1991 V

## TABLE TALK

● IT IS advisable to use separate chopping boards for preparing different foods. A new range of flexible boards has just been introduced, which are colour printed with the intended use; the board meant for raw meat has that message printed in red across one corner, for raw fish the message is in blue, and so on across six boards. The other great bonus is that they are thin and flexible enough to bend into a funnel, which means you can tip your diced carrots straight into the pan and not all over the floor. More accurately termed "mats" than "boards", they are made of polypropylene, which doesn't blunt knives unduly, which can go into the dishwasher or be sterilised in boiling water. Once I had got used to the thinness, I blessed the flexibility, and found the size (254mm by 406mm or 16in by 10in) quite adequate. They cost about £3 each and can be found in many cooks' shops, or bought as a set by mail order — £18 for six, which includes postage and packing, and VAT. Send orders to RoS Mat Marketing, Sealfarm House, Modbury, Devon PL21 0XX. To pay by credit card, telephone 0548 830710 between 8.30am and 5pm.

EXHIBIT 6

Blumberg No. 5117